



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,893	08/27/2003	Paul W. Brown	111935-00009	5096

3705 7590 06/27/2006

ECKERT SEAMANS CHERIN & MELLOTT
600 GRANT STREET
44TH FLOOR
PITTSBURGH, PA 15219

EXAMINER

JOHNSON, EDWARD M

ART UNIT	PAPER NUMBER
----------	--------------

1754

DATE MAILED: 06/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/648,893

Applicant(s)

BROWN, PAUL W.

Examiner

Edward M. Johnson

Art Unit

1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, line 11, "the waste" lacks antecedent basis and/or is unclear as to what is being referred to. Examiner suggests --the aqueous waste--.

Claim 14, "the pore structure" and "the solid" lack antecedent basis.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 and 7-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Snyder et al. US 5,640,704.

Art Unit: 1754

Regarding claim 1, Snyder '704 discloses a process for treatment for immobilizing nitrate waste (abstract) comprising mixing with ferric and ferrous oxide and alumina (see abstract and column 3, lines 16-29 and 49-55) or hydroxides (see column 2, lines 44-46), and solidifying (see abstract).

Regarding claims 7-13 and 15, Snyder discloses CaO, Al₂O₃, Sr, and ferric oxide (see column 3, lines 16-29 and 49-55; and Table 1).

Regarding claim 14, Snyder '704 discloses fixation within the grout crystalline structure (see column 4, lines 1-9).

Regarding claim 16, Snyder '704 discloses radioactive waste (abstract).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1754

6. Claims 2-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Snyder '704 as applied to claim 1 above, and further in view of Barney et al. US 4,028,265.

Regarding claims 2-6 Snyder '704 fails to disclose the reaction including sodium.

Barney '265 discloses sodium (title).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the sodium of Barney to react in the nitrate waste solidification/immobilization process of Snyder because Barney discloses the sodium as sodium nitrate in a method for treating radioactive waste (abstract), which is simple and requires no outside heat input to immobilize the radioactive salts to achieve low leachability (see column 2, lines 15-20).

Regarding claims 7-13, Snyder discloses CaO , Al_2O_3 , Sr, and ferric oxide (see 3, lines 16-29 and 49-55; and Table 1).

Regarding claims 7-13 15, Snyder discloses CaO , Al_2O_3 , Sr, and ferric oxide (see column 3, lines 16-29 and 49-55; and Table 1).

Art Unit: 1754

Regarding claim 14, Snyder '704 discloses fixation within the grout crystalline structure (see column 4, lines 1-9).

Regarding claim 16, Snyder '704 discloses radioactive waste (abstract).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Noakes US 5,269,975 discloses solidification of radioactive waste in cement comprising various ingredients (see abstract and Examples); Matsuda et al. US 5,498,828 discloses solidification agents for radioactive waste and a method for processing comprising a mixture and reaction of the substances after pre-treatment; and Pierce et al. US 5,960,368 discloses a method for treatment of radioactive wastes comprising contacting with acid, solidifying, and immobilizing (see abstract and Examples).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward M. Johnson whose telephone number is 571-272-1352. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley S.

Art Unit: 1754

Silverman can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Edward M. Johnson
Primary Examiner
Art Unit 1754

EMJ